

§ 1.121):

Please amend Figure 7 to identify the tripod with reference numeral 100.

### **REMARKS**

Reconsideration of this application, as amended, is respectfully requested.

#### **I. Status of the Claims**

Claims 1-3, 5, 6 and 8-18 are pending in the application.

#### **II. Status of the Specification**

The specification has been amended to clearly identify all of the claimed elements present in the originally filed claims. Additionally, the specification was amended to correct the informalities noted by the Examiner. In particular, pages 24-28 have been replaced to place the claims on a page separate from the specification. No other amendments were made to pages 24-28 other than typesetting. The amendments add no new matter. Therefore, the Applicant respectfully requests that the objection to the specification be withdrawn.

#### **III. Status of the Drawings**

Proposed drawing corrections to Figure 7 has been submitted to address the Examiner's concerns and to clearly illustrate all the features that were claimed in the claims as filed. No new matter is added. Specifically, the Applicants respectfully states that the tripod was illustrated in Figure 7 as filed, the drawings have been amended to clearly identify the tripod. Thus, the Applicant respectfully requests that above objection to the drawings be withdrawn.

#### **IV. Rejections Under 35 U.S.C. § 102(b)**

Claims 1-3, 5, 6 and 8-10 are rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,407,295 to Kuhl. The Examiner states that Kuhl discloses telescoping tubular members having press applying and press receiving surfaces disposed in a rotational relationship. The Applicant respectfully traverses the above rejection by stating that Kuhl does not disclose all the elements of the claimed invention.

The Applicant respectfully states that claims 1,5 and 6, as amended, are not anticipated by Kuhl. Claims 1, 5 and 6 have been amended to recite the structure that the "rotation of the second tubular member in the other direction is limited so as to prevent the given locations of the press applying surface portions to be pressed against the press receiving surface portions." Support for this limitation found on page 5, lines 14-19 and pages 18 and 19. Upon rotating the second tubular member

in the other direction, the press applying and receiving portions are released from contact and the second tubular member is prevented from further rotation to reengage the press portions. Khul does not teach or disclose such a structure. Khul clearly states that the "shaft-hub linkage according to the invention is a firm connection in both directions of rotation, i.e. it is independent of the direction of rotation." Khul, column 7, lines 37-40. Also see, Khul, Figure 4. Thus, Khul does not teach limiting the rotation of the innermost tube to prevent engagement of the press applying and receiving surfaces. Additionally, claims 2, 3 and 8-10 all depend from claim 1 and define over the prior art based on their own recital and their dependency from the independent claim. Thus, the Applicant respectfully requests that the above rejection be withdrawn.

Claims 1-3, 5, and 6 are rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,653,142 to Upton. The Examiner states that Upton discloses telescoping tubular members having press applying and press receiving surfaces disposed in a rotational relationship. The Applicant respectfully traverses the above rejection by stating that Upton does not disclose all the elements of the claimed invention.

The Applicant respectfully states that claims 1, 5, and 6, as amended, are not anticipated by Upton. Claims 1, 5 and 6 have been amended to recite the

structure that the "rotation of the second tubular member in the other direction is limited so as to prevent the given locations of the press applying surface portions to be pressed against the press receiving surface portions." Support for this limitation found on page 5, lines 14-19 and pages 18 and 19. Upon rotating the second tubular member in the other direction, the press applying and receiving portions are released from contact and the second tubular member is prevented from further rotation to reengage the press portions. Upton does not teach or disclose such a structure. Upton clearly teaches that the innermost tube 31, 41, 51, 62 can be rotated in either direction to bind against the outer tube 30, 40, 50, 60. *See*, Upton, Figures 5A-8B. Thus, Upton does not teach limiting the rotation of the innermost tube to prevent engagement of the press applying and receiving surfaces. Additionally, claims 2 and 3 depend from claim 1 and define over the prior art based on their own recital and their dependency from the independent claim. Thus, the Applicant respectfully requests that the above rejection be withdrawn.

**V. Rejections Under 35 U.S.C. § 103(a)**

Claims 8-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Upton and the Examiner's statement of ordinary skill in the art. The Applicant respectfully traverses the above rejection by stating that Upton, alone or in combination, does not disclose all of the claimed limitations.

The Applicant respectfully states that claims 8-10 depend from claim 1. Claim 1 has been amended and the arguments above, in regards to Upton, are applicable in traversing the present rejection. Additionally, claims 8-10 define over the prior art based on their own recital. Thus, Applicant respectfully requests that the above rejection be withdrawn.

Claims 1-3, 5, 6 and 8-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over either U.S. Patent No. 2,284,847 to Raymond or U.S. Patent No. 2,234,486 to Craig, both in view of the Examiner's statement of ordinary skill in the art at the time the invention was made. The Examiner states that both Raymond and Craig disclose tubular members having press applying and press receiving surfaces disposed in a rotational relationship. The Examiner then states that it would be obvious to one of ordinary skill in the art to have used Raymond's or Craig's configuration with a telescoping assembly. The Applicant respectfully traverses the above rejection by stating that Raymond and Craig do not teach or suggest, alone or in combination, all the elements of the claimed invention.

Regarding both Raymond and Craig, Applicant respectfully states that the Examiner is improperly using hindsight to combine these reference with ordinary skill in the art. Neither Raymond nor Craig teach a telescoping structure. Thus, a person of ordinary skill in the art, in reviewing the cited art, would not be motivated to use Raymond's wedges and teeth or Craig's structure in a telescoping relationship.

Additionally, both Raymond and Craig are not properly combinable because the Examiner's suggested modification would destroy the functionality of both inventions.

Raymond teaches using his structure to mount lenses or lens filters. See, e.g., Raymond, column 1, lines 16-23 and column 2, lines 29-34. This is also clearly illustrated in Figure 1, illustrating lens or filter 18. The Applicant respectfully states that if Raymond's structure was telescoping, wedge-members 15 and teeth 16 would puncture the lens or filter of supplementary attachment 17. Additionally, the distance between annulus 11 and supplementary attachment 17 must be a known quantity since that distance affects the focus of the photographic equipment. It would not be obvious to telescope the supplementary attachment, and thus change the focal length of the lens.

Craig teaches a bit for rock drills. Craig's bit 1 is designed to be supported by shank 5, not penetrated by the shank. If bit 1 is designed to telescope into or over shank 5, as the Examiner suggests, the surface area of bit 1 would be reduced. This reduction in bit surface area would either render the bit useless or substantially reduce the bit's effectiveness. Additionally, the structure suggested by the Examiner would permit any accidental release of bit 1 to cause shank 5 to come into contact with the rock. Shank 5 is not designed to contact the rock and this

contact causes undue wear to the shank. Thus, one of ordinary skill in the art would not design a telescoping bit/shank interlock as suggested by the Examiner.

Additionally, claims 2, 3 and 8-10 all depend from claim 1 and define over the prior art based on their own recital and their dependency from the independent claim. Thus, the Applicant respectfully requests that the above rejection be withdrawn.

Claims 11-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over any of Kuhl, Upton, Craig and Raymond, in view of U.S. Patent No. 5,003,328 to Gaynor. The Examiner states that Kuhl, Upton, Craig and Raymond teach or disclose the entire invention except a tripod and that Gaynor teaches a tripod. The Applicant respectfully traverses the above rejection by stating that Kuhl, Upton, Craig, Raymond and Gaynor, alone or in combination, do not teach or disclose all of the claimed limitations of the present invention.

The Applicant respectfully states that the arguments above, as they pertain to Kuhl and Upton are applicable in traversing the present rejection. Additionally, both Raymond and Craig teach away from using telescoping members, and the arguments above, as they pertain to Craig and Raymond, are applicable in traversing the present rejection.

Additionally, claims 11-18 all depend from claims 1, 5 and 6 and define over the prior art based on their own recital and their dependency from the

independent claims. Thus, the Applicant respectfully requests that the above rejection be withdrawn.

### CONCLUSION

In view of the foregoing, it is believed that the claims are in condition for allowance and it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Koichiro NAKATANI

Serial No.: 09/830,048

Art Unit: 3671

Confirmation No.: 9436

Filed: April 19, 2001

Examiner: Gary S. Hartmann

For: TELESCOPIC UNIT AND TRIPOD

MARK-UP ACCOMPANYING AMENDMENT

Hon. Commissioner of  
Patents and Trademarks  
Washington, DC 20231

December 9, 2002

Sir:

IN THE CLAIMS

Please replace claims 1, 5 and 6 with the following amended claims 1, 5 and 6.

1. (Amended) A telescopic unit including:

a first tubular member; and

a second tubular member which is inserted in said first tubular member so as to be capable of rotating in the circumferential directions and enabling the adjustment of the distance by which the second tubular member projects from the first tubular member; wherein:

one or more press receiving surface portions are formed on the inner cylindrical surface of the first tubular member, said press receiving surface portions having a cross section which has an arc-shaped surface such that the center axis of the arc extends in parallel with the center axis of said first tubular member;

one or more press applying surface portions are formed on the outer cylindrical surface of the second tubular member, said press applying surface portions having a cross section which has an arc-shaped surface such that the center axis of the arc extends in parallel with the center axis of said second tubular member;

rotation of the second tubular member in one direction circumferentially relative to the first tubular member causes given locations of the press applying surface portions to be pressed against the press receiving surface portions, thereby securing the second tubular member to the first tubular member; [and]

rotation of the second tubular member in the other direction circumferentially relative to the first tubular member releases the press applying surface portions and the press receiving surface portions from the press-contact with each other so that the distance by which the second tubular member projects from the first tubular member can be adjusted; and

rotation of the second tubular member in the other direction is limited so as to prevent the given locations of the press applying surface portions to be pressed against the press receiving surface portions.

5. A telescopic unit including:

a first tubular member whose cross section is in the shape of an involute curve or a similarly shaped curve; and

a second tubular member which is inserted in the first tubular member so as to be capable of rotating in the circumferential directions and enabling the adjustment of the distance by which the second tubular member projects from the first tubular member and has a cross section that is in the shape of an involute curve or a similarly shaped curve and corresponds to the cross section of the first tubular member; wherein:

rotation of the second tubular member in one direction circumferentially relative to the first tubular member causes the outer surface of said second tubular member to be pressed against the inner surface of the first tubular member, thereby securing the second tubular member to the first tubular member; [and]

rotation of the second tubular member in the other direction circumferentially relative to the first tubular member releases the outer surface of the second tubular member and the inner surface of the first tubular member from the press-contact with each other so that the distance by which the second tubular member projects from the first tubular member can be adjusted; and

rotation of the second tubular member in the other direction is limited so as to prevent the given locations of the press applying surface portions to be pressed against the press receiving surface portions.

6. A telescopic unit including:

a first tubular member whose cross section has a shape comprised of a combination of identical parts of either an involute curve or a similarly shaped curve; and

a second tubular member which is inserted in the first tubular member so as to be capable of rotating in the circumferential directions and enabling the adjustment of the distance by which the second tubular member projects from the first tubular member and has a cross section whose shape corresponds to that of the first tubular member and is comprised of a combination of identical parts of either an involute curve or a similarly shaped curve; wherein:

rotation of the second tubular member in one direction circumferentially relative to the first tubular member causes the outer surface of said second tubular member to be pressed against the inner surface of the first tubular member, thereby securing the second tubular member to the first tubular member; [and]

rotation of the second tubular member in the other direction circumferentially relative to the first tubular member releases the outer surface of the second tubular member and the inner surface of the first tubular member from the press-contact with each other so that the distance by which the second tubular member projects from the first tubular member can be adjusted; and

rotation of the second tubular member in the other direction is limited so as to prevent the given locations of the press applying surface portions to be pressed against the press receiving surface portions.

## **IN THE SPECIFICATION**

Please amend the specification pursuant to 37 C.F.R. § 1.121 as follows:

Please delete the paragraph beginning on page 8, line 24 and ending on page 9, 15, and replace with the following:

Fig. 1 is a perspective of an embodiment of a telescopic unit according to the present invention, wherein the telescopic unit is in the extended state;

Fig. 2 is a perspective of said telescopic unit in the contracted state;

Fig. 3 is a sectional view of said telescopic unit, showing when the telescopic unit is released from a secured state;

Fig. 4 is a sectional view of said telescopic unit in the secured state;

Fig. 5 is a sectional view of said telescopic unit in the secured state;

Fig. 6 is a schematic illustration to explain the shape of a cross section of a first tubular member of said telescopic unit;

Fig. 7 is a perspective of telescopic units used in a tripod;

Fig. 8 is a sectional view of another embodiment of a telescopic unit according to the present invention;

Fig. 9 is a sectional view of yet another embodiment of a telescopic unit according to the present invention;

Fig. 10 is a sectional view of yet another embodiment of a telescopic unit according to the present invention;

Fig. 11 is a sectional view of yet another embodiment of a telescopic unit according to the present invention; and

Fig. 12 is an exploded perspective of a conventional telescopic unit.

Please amend the paragraph starting on page 9, line 19 and ending on page 10, line 2, to read as follows:

A tripod 100 shown in Fig. 7 has a leg structure comprising extensible legs, each of which consists of a plural number of segments, e.g. three segments. [The tripod] Tripod 100 is provided with a base 10 which has three leg attachments 11. A telescopic unit 12 that serves as a leg unit is attached to each leg attachment 11 so that tripod 100 can be closed or opened as needed. An elevator rod 14 passes through the base 10 in such a way that the height of the elevator rod 14 can be adjusted. A panhead (not shown) to be used with a camera is mounted on the top of the elevator rod 14.

Please delete pages 24-28 and replace them with the following substitute pages 24-28 enclosed herewith.

**IN THE DRAWINGS**

Please amend the drawings submitted on April 19, 2001 pursuant to 37 C.F.R.

§ 1.121 as follows:

Please amend Figure 7 to identify the tripod with reference numeral 100.



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PATENT TRADEMARK OFFICE

Docket No: 9450/0K689-US0

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Koichiro NAKATANI

Serial No. 09/830,048

Art Unit: 3671

Confirmation No.: 9436

Filed: April 19, 2001

Examiner: Gary S. HARTMANN

For: TELESCOPIC UNIT AND TRIPOD

PENDING CLAIMS AS OF DECEMBER 9, 2002  
SERIAL NO: 09/830,048  
DARBY REF: 9450/0K689

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1. A telescopic unit including:

a first tubular member; and

a second tubular member which is inserted in said first tubular member so as to be capable of rotating in the circumferential directions and enabling the adjustment of the distance by which the second tubular member projects from the first tubular member; wherein:



one or more press receiving surface portions are formed on the inner cylindrical surface of the first tubular member, said press receiving surface portions having a cross section which has an arc-shaped surface such that the center axis of the arc extends in parallel with the center axis of said first tubular member;

one or more press applying surface portions are formed on the outer cylindrical surface of the second tubular member, said press applying surface portions having a cross section which has an arc-shaped surface such that the center axis of the arc extends in parallel with the center axis of said second tubular member;

rotation of the second tubular member in one direction circumferentially relative to the first tubular member causes given locations of the press applying surface portions to be pressed against the press receiving surface portions, thereby securing the second tubular member to the first tubular member;

rotation of the second tubular member in the other direction circumferentially relative to the first tubular member releases the press applying surface portions and the press receiving surface portions from the press-contact with each other so that the distance by which the second tubular member projects from the first tubular member can be adjusted; and

rotation of the second tubular member in the other direction is limited so as to prevent the given locations of the press applying surface portions to be pressed against the press receiving surface portions.

2. A telescopic unit as claimed in claim 1, wherein:

a plural number of press receiving surface portions are formed on the inner surface of the first tubular member so that the press receiving surface portions are arranged in the circumferential direction with a distance between each press receiving surface portion and its adjacent press receiving surface portion; and

a plural number of press applying surface portions are formed on the outer surface of the second tubular member so that the press applying surface portions are arranged in the circumferential direction at locations respectively corresponding to said press receiving surface portions, with a distance between each press applying surface portion and its adjacent press applying surface portion.

3. A telescopic unit as claimed in claim 2, wherein:

a receiving step portion is formed between each press receiving surface portion and its adjacent press receiving surface portion of the first tubular member; and

a catching step portion that is adapted to catch the corresponding receiving step portion when the second tubular member is rotated circumferentially in the aforementioned other direction relative to the first tubular member is formed between each press applying surface portion and its adjacent press applying surface portion of the second tubular member.

5. A telescopic unit including:

a first tubular member whose cross section is in the shape of an involute curve or a similarly shaped curve; and

a second tubular member which is inserted in the first tubular member so as to be capable of rotating in the circumferential directions and enabling the adjustment of the distance by which the second tubular member projects from the first tubular member and has a cross section that is in the shape of an involute curve or a similarly shaped curve and corresponds to the cross section of the first tubular member; wherein:

rotation of the second tubular member in one direction circumferentially relative to the first tubular member causes the outer surface of said second tubular member to be pressed against the inner surface of the first tubular member, thereby securing the second tubular member to the first tubular member; and

rotation of the second tubular member in the other direction circumferentially relative to the first tubular member releases the outer surface of the second tubular member and the inner surface of the first tubular member from the press-contact with each other so that the distance by which the second tubular member projects from the first tubular member can be adjusted.

6. A telescopic unit including:

a first tubular member whose cross section has a shape comprised of a combination of identical parts of either an involute curve or a similarly shaped curve; and

a second tubular member which is inserted in the first tubular member so as to be capable of rotating in the circumferential directions and enabling the adjustment of the distance by which the second tubular member projects from the first tubular member and has a cross

section whose shape corresponds to that of the first tubular member and is comprised of a combination of identical parts of either an involute curve or a similarly shaped curve; wherein:

rotation of the second tubular member in one direction circumferentially relative to the first tubular member causes the outer surface of said second tubular member to be pressed against the inner surface of the first tubular member, thereby securing the second tubular member to the first tubular member; and

rotation of the second tubular member in the other direction circumferentially relative to the first tubular member releases the outer surface of the second tubular member and the inner surface of the first tubular member from the press-contact with each other so that the distance by which the second tubular member projects from the first tubular member can be adjusted.

8. A telescopic unit, according to claim 1, further comprising:

the first tubular member is provided with a receiving member which is snugly fitted in the bottom of the first tubular member and has a cross section having a shape similar to that of the first tubular base member; and

the second tubular member is provided with a catching member which is snugly fitted around the outer surface of the upper end of the second tubular member, has a cross section having a shape similar to that of the second tubular member, and is adapted to catch said receiving member when the second tubular member projects to its fullest extent.

9. A telescopic unit, according to claim 2, further comprising:

the first tubular member is provided with a receiving member which is snugly fitted in the bottom of the first tubular member and has a cross section having a shape similar to that of the first tubular base member; and

the second tubular member is provided with a catching member which is snugly fitted around the outer surface of the upper end of the second tubular member, has a cross section having a shape similar to that of the second tubular member, and is adapted to catch said receiving member when the second tubular member projects to its fullest extent.

10. A telescopic unit, according to claim 3, further comprising:

the first tubular member is provided with a receiving member which is snugly fitted in the bottom of the first tubular member and has a cross section having a shape similar to that of the first tubular base member; and

the second tubular member is provided with a catching member which is snugly fitted around the outer surface of the upper end of the second tubular member, has a cross section having a shape similar to that of the second tubular member, and is adapted to catch said receiving member when the second tubular member projects to its fullest extent.

11. A telescopic unit, according to claim 1, further comprising:

a tripod;

said tripod including a base;

said base including a plurality of leg attachments; and

said telescopic units respectively attached to each said leg attachments.

12. A telescopic unit, according to claim 2, further comprising:

a tripod;

said tripod including a base;

said base including a plurality of leg attachments; and

said telescopic units respectively attached to each said leg attachments.

13. A telescopic unit, according to claim 3, further comprising:

a tripod;

said tripod including a base;

said base including a plurality of leg attachments; and

said telescopic units respectively attached to each said leg attachments.

14. A telescopic unit, according to claim 5, further comprising:

a tripod;

said tripod including a base;

said base including a plurality of leg attachments; and

said telescopic units respectively attached to each said leg attachments.

15. A telescopic unit, according to claim 6, further comprising:

a tripod;

said tripod including a base;

said base including a plurality of leg attachments; and

said telescopic units respectively attached to each said leg attachments.

16. A telescopic unit, according to claim 8, further comprising:

a tripod;

said tripod including a base;

said base including a plurality of leg attachments; and

said telescopic units respectively attached to each said leg attachments.

17. A telescopic unit, according to claim 9, further comprising:

a tripod;

said tripod including a base;

said base including a plurality of leg attachments; and

said telescopic units respectively attached to each said leg attachments.

18. A telescopic unit, according to claim 10, further comprising:

a tripod;

said tripod including a base;

said base including a plurality of leg attachments; and

said telescopic units respectively attached to each said leg attachments.